

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
INQUIRY REGARDING CARRIER)	ET Docket No. 03-104
CURRENT SYSTEMS, INCLUDING)	
BROADBAND OVER POWER LINE)	
SYSTEMS)	

To The Commission:

COMMENTS OF RICHARD P. CLEM

INTRODUCTION

1. For the reasons stated herein, the undersigned submits these comments in support of the comments of the American Radio Relay League (ARRL) in this matter, and in opposition to the comments of various proponents of Broadband over Power Line (BPL), including those of the Power Line Communications Association (PLCA); PPL Telecom; Southern Linc, Southern Telecom, Inc., and Southern Company Services, Inc.; Current Technologies LLC; and United Power Line Council (UPLC).

2. I am an attorney, but the comments expressed herein are made on my own behalf. I have been, since 1974, an amateur radio operator, and currently hold the Extra Class license, and my amateur callsign is W0IS. I also hold an FCC General Radiotelephone Operator License number PG-16-19371. As an amateur, I regularly make use of the amateur

bands between 3.5 and 54 MHz. My use of these frequencies for which I am licensed would be severely impacted by BPL technology.

3. I am also a shortwave listener, and BPL technology would make it difficult or impossible for me to listen to many shortwave broadcast stations.

4. I am not an engineer, and while I understand that BPL would cause severe interference problems on the amateur bands, I do not feel competent to offer expert testimony as to the technical issues before the commission. I am a member of ARRL, and I wholeheartedly support ARRL's comments in this matter.

I. The comments of ARRL and thousands of Amateur Radio Operators make a convincing case that BPL will cause serious harmful interference to the Amateur Service.

5. As stated above, while having been a licensed amateur radio operator since 1974, I am not an engineer, and I lack the technical expertise to state the technical data showing that BPL would cause severe harmful interference to amateur radio and other users of the high-frequency spectrum. However, I have reviewed the comments of ARRL, and my experience with radio convinces me that the ARRL's conclusion is correct--that BPL "is a Pandora's Box of unprecedented proportions." Comments of ARRL at para. 27.

I urge the Commission to take most seriously the arguments and technical data advanced by ARRL.

II. The comments of PLCA and PPL Telecom improperly trivialize the opposition to BPL.

6. I was struck by the Comments of the Power Line Communications Association (PLCA). This trade association correctly concedes that the "questions posed by the commission in its NOI regard technical issues." But it goes on to say, with no citation whatsoever of technical data, that the opposition to BPL systems comes from "speculative and self-serving comments offered by parties who seek only to hinder the deployment of BPL technology." Comments of PLCA at p. 2.

7. It is apparent from the sheer number of comments filed by licensed amateur radio operators, that a large portion of the "parties who seek only to hinder" are licensed amateurs. As a licensed amateur, I take pride in the fact that I "seek to hinder" this problematic technology; however, I take exception and great offense at PLCA's cavalier dismissal of the concerns of licensed users of the RF spectrum such as myself. The reason we seek to hinder this technology, as ARRL's comments make clear, is

because this technology would cause severe harmful interference.

8. The comments of ARRL and the voluminous technical data cited therein, make clear that the objections to BPL are not "speculative," as PLCA dismisses them without citation to any technical data whatsoever. It is clear from reviewing the work presented by ARRL in its comments that BPL almost ensures severe harmful interference to users of the high-frequency spectrum.

9. PLCA is, however, quite correct when it states that the comments of ARRL and of thousands of amateurs are "self-serving". As ARRL's Comments make clear, BPL technology will make many amateur communications extremely difficult, less reliable, and in some cases probably impossible.

10. The objections of amateur radio operators and other users of the high-frequency spectrum are "self serving" for one reason alone: BPL and licensed use of the high-frequency spectrum are simply not compatible.

11. In some cases, this "self-serving" opposition is for the mere reason that BPL will make it impossible to enjoy an extremely rewarding hobby such as amateur radio or shortwave listening. But in many, many other cases, BPL will mean severe restrictions in the ability of amateurs to provide public-service communications that have been, and will be in the future, vital to public safety and homeland

security. I for one am proud to express my "self-serving" opposition to a technology that may deprive my community and my nation of this vital aid in times of emergency.

12. Similarly, PPL Telecom concedes that there is vast opposition to BPL within unnamed "amateur radio forums," but dismisses these unnamed "forums" as "not provid[ing] any direct evidence that BPL vendors' technologies cause interference...." Comments of PPL Telecom at page 6, note 2.

13. I respectfully object to this comment, and submit that it should be disregarded by the Commission. While PPL apparently recognizes that there is widespread opposition to BPL within these "amateur radio forums," nowhere in its comments does it identify the "forum" to which it is referring.

14. The comments presented by ARRL on behalf of licensed amateurs clearly demonstrate that BPL, as it is envisioned and has been tested in the U.S. and elsewhere, does indeed cause harmful interference to amateurs and other users of the high-frequency spectrum. There is indeed ample "direct evidence that BPL vendors' technologies cause interference" which has been presented to the Commission by ARRL and others.

15. Undoubtedly, PPL feels the need to attack these anonymous "forums" and not the technical data presented by

ARRL precisely because ARRL's comments are so full of "direct evidence that BPL vendors' technologies cause interference."

16. I respectfully object to PPL's creation of this straw-man argument by referring to these anonymous "forums" as constituting the objections to BPL. The real objections to BPL have been set forth by ARRL and others who have presented superb technical data showing that BPL will cause severe harmful interference to the amateur service. The objections to BPL do not arise out of anonymous forums, as PPL would have the Commission believe. They arise instead out of the "self-serving" objections of ARRL and thousands of amateurs who have availed themselves of the opportunity to comment, not in anonymous "forums" as PPL would have the Commission believe, but instead in this public regulatory forum.

III. Many BPL proponents concede that protection to standard AM broadcasting is necessary. Shifting the problem away from the AM broadcast band does not solve BPL's problems.

17. As noted above, the comments of ARRL and others make clear that BPL would have a disastrous effect on the portions of the radio spectrum on which it would operate.

18. Many of the pro-BPL comments I reviewed apparently concede that protection against harmful interference is

necessary with respect to standard AM broadcasting. For example, the Comments of Southern Linc, Southern Telecom, Inc., and Southern Company Services, Inc., cite 47 C.F.R. §§ 15.107(c), 15.109(e) and 207(c), which provide protection to the AM broadcast band. Comments of Southern Linc, Southern Telecom, Inc., and Southern Company Services, Inc., at p. 16.

19. The comments of Current Technologies LLC similarly concede, at page 16, that protection from BPL should be afforded within the AM broadcast band.

20. Also, United Power Line Council states that its "systems operate above 1.705 MHz", which is the upper limit of the standard AM broadcast band. Comments of UPLC at page 8.

21. It is striking to me, in the comments I had an opportunity to review, how frequently the proponents of BPL concede that special protection must be afforded to the standard AM broadcast band. This is undoubtedly due to the fact that these proponents are aware that virtually every American citizen owns an AM broadcast receiver, and that any provider of BPL service would be presented with a public-relations nightmare of unprecedented proportions were it to deploy BPL technology in such a manner as to render these radios a source of noise and static, instead of information and entertainment.

22. If the AM radios of America were suddenly rendered of no utility, PLCA, for example, would be hard pressed to argue, as it does in the instant proceeding, that the millions of complaining Americans were merely tendering "speculative and self-serving comments offered by parties who seek only to hinder the deployment of BPL technology."

23. Similarly, it is doubtful that PPL would dismiss the complaints of the millions of Americans who own a broadcast radio as arising from anonymous "forums" and lacking in any technical substance. It would be patently absurd for them to argue in these circumstances that millions of Americans were complaining needlessly, and that their complaints were lacking "any direct evidence that BPL vendors' technologies cause interference"

24. There is a reason why the proponents of BPL are conceding that standard broadcast radio deserves special protection under the Commission's rules. That is because if BPL were to use standard AM broadcast frequencies, it would likely cause significant harmful interference to those frequencies, and would have a severe adverse impact upon the public interest, convenience, and necessity of virtually the entire American population.

25. Those proponents obviously realize that this is a battle that they could never possibly win. Even assuming that such a victory could be won before the Commission, the

cost would be a public-relations disaster of unprecedented proportions: The public would view the cost of BPL as the demise of radio broadcasting. It is doubtful whether any of these owners of useless AM radios would flock to BPL services and become paying subscribers.

26. But those same proponents incorrectly assume that by moving the battleground from the AM band to the high-frequency portion of the spectrum, the public-relations costs will not be as great. Instead of alienating nearly every American citizen, they are instead alienating only a few hundreds of thousands or millions of relatively invisible users of that spectrum, such as licensed amateurs, shortwave listeners, and others. This is undoubtedly perceived as a public-relations battle that the proponents can win.

27. The proponents of BPL implicitly concede that BPL cannot share spectrum with AM radio. I respectfully submit that simply moving the spectrum pollution away from the AM band and on to other users of the spectrum is not a solution to the inherent problems of BPL. The cost of disrupting vital services such as amateur radio is far greater than the few benefits that can be reaped by BPL technology.

CONCLUSION

27. I am not an engineer, and I defer to ARRL and other commenters who have presented a compelling case that

BPL as it is envisioned by many of its proponents would cause severe interference and have disastrous effects upon licensed amateur radio operators, and the members of the public they serve.

28. Based upon the research of ARRL and others, as well as upon this layperson's long experience with radio, I am convinced that BPL as it is currently being promoted would have disastrous consequences, and I respectfully ask the Commission to carefully weigh the comments of ARRL and adopt rules that will ensure that the high-frequency spectrum remains useable for amateurs, shortwave listeners, and other current and future users of this spectrum.

Respectfully Submitted this 13th day of August, 2003.

/s/

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